5401
EA-04-10
Culp Creek

May 5, 2004

Concerned Citizen,

The Upper Willamette Resource Area of the Eugene District Bureau of Land Management has completed the Environmental Assessment (EA) and Finding of No Significant (FONSI) for the proposed Culp Creek Aquatic Habitat Restoration project located in Section 31, T. 21 S., R. 1 W., Will. Mer.

You have expressed an interest in receiving copies of Environmental Assessments for district projects. Enclosed is a copy of the Environmental Assessment for your review and any comments. Public notice of this proposed action will be published in the Eugene Register Guard on May 5, 2004. The EA will also be available on the internet at http://www.edo.or.blm.gov/planning. The public comment period will end on May 25, 2004. Please submit comments to me at the district office, by mail or by e-mail at OR090mb@or.blm.gov by close of business (4:15 p.m.) on or prior to May 25, 2004. If you have any questions concerning this proposal, please feel free to call Chuck Vostal at 683-6454.

Comments, including names and street addresses of respondents, will be available for public review at the district office, 2890 Chad Drive, Eugene, Oregon during regular business hours (7:45 a.m. to 4:15 p.m.), Monday through Friday, except holidays, and may be published as part of the EA or other related documents. Individual respondents may request confidentiality. If you wish to withhold your name or street address from public review or from disclosure under the Freedom of Information Act, you must state this prominently at the beginning of your written comment. Such requests will be honored to the extent allowed by law. All submissions from organizations or businesses and from individuals identifying themselves as representatives or officials of organizations or businesses, will be made available for public inspection in their entirety.

Sincerely,

Emily Rice, Field Manager
Upper Willamette Resource Area

Enclosure

1792A
EA-04-10

Culp Creek Aquatic Habitat Restoration

Upper Willamette Resource Area
BLM Eugene District
Environmental Assessment
OR090-04-10

I.0 INTRODUCTION

1.1 BACKGROUND

This action proposes a cooperative project with the Weyerhaeuser Company to remove the old "Power House Dam" on main stem Culp Creek, and restore the stream channel and riparian area to a more natural condition. The dam was originally constructed during the 1950's on BLM land leased to Bohemia Incorporated. The dam is currently a barrier for upstream and downstream movement of fish and other aquatic-dependent species, and has disrupted the natural sediment regime within the drainage system. In addition, this action proposes to construct three boulder weirs downstream of the dam site, and restore a damaged streambank resulting from an improperly installed road drainage culvert.

The project area is located in the SE¼SE¼ Section 31, Township 21 South, Range 1 West, Willamette Meridian, Lane County, Oregon, in the Upper Willamette Resource Area of the Eugene District of the Bureau of Land Management (BLM). The project area lies within the Matrix Land Use Allocation (Connectivity/Diversity Block and General Forest Management Area).

1.2 PURPOSE AND NEED FOR THE ACTION

The purpose of this action is to restore the spatial connectivity and physical integrity of the aquatic ecosystem by eliminating human-caused barriers within the watershed. The need for action is established in the Row River Watershed Analysis which gives direction to remove such barriers to the movement of aquatic organisms (Chapter 7, p.1), and restore aquatic and riparian structure to what could be expected under natural conditions (Chapter 7, p. 20).

1.3 CONFORMANCE WITH LAND USE PLAN

The Proposed Action is in conformance with the *Record of Decision (ROD) for Amendments to Forest Service and Bureau of Land Management Planning Documents within the Range of the Northern Spotted Owl,* April 1994 (NSO ROD), and the RMP as amended by the *Record of Decision Resource Management Plans for Seven Bureau of Land Management Districts and Land and Resource Management Plans for Nineteen National Forests Within the Range of the Northern Spotted Owl* (March 2004), *and Record of Decision to Remove or Modify the Survey and Manage Mitigation Measure Standards and Guidelines in Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl* (March 2004). These documents are available at the Eugene District Office of the BLM, Eugene, Oregon or on the internet at http://www.or.blm/nwfp.htm.

1.4 ISSUE

The issue for analysis was developed based on interdisciplinary team discussion and is summarized below.

1) What would be the effect of the alternatives on water quality, fisheries, and aquatic habitat?

2.0 PROPOSED ACTION AND ALTERNATIVE

This section describes the alternatives identified by the interdisciplinary team, and provides a comparison between them. Table 1, Location Map, Site Map, and Vicinity Map for the Proposed Action are located in Appendix A.

2.1 Alternative 1: No Action

Under this alternative, no restoration would occur within the project area.

2.2 Alternative 2: PROPOSED ACTION

The Proposed Action is to remove the old "Power House Dam" which is located in the lower portion of Culp Creek. The dam is in the form of an old road segment which accesses a small quarry to the west of the project area. The elimination of the dam would involve removing a short segment of this old road and two 6' x 4' metal culverts. The dam would be removed from the creek to approximately the original stream elevation (~15'). The natural stream channel width of 15-20 feet would be maintained through the dam location and the stream banks would either be pulled back to their original profile or sloped at a length to height ratio of approximately 1 ¼ :1. Banks would be armored to an elevation of approximately 10 feet above the stream channel with oversized rock contained within the existing fill. Streambanks would be seeded with native grass, and receive erosion mats or straw if determined to be necessary for soil stability. All other excavated fill would be removed and placed in an existing borrow pit (quarry site) and within the log storage yard to the west of Culp Creek (refer to Appendix A, "Location Map"). The waste material would be shaped for drainage and seeded with native grass prior to the fall rains. Depending on post-project site conditions, restored streambanks may be planted with western redcedar in the following planting season.

Less than 0.5 acre of 30-50 year old trees would be removed by project activities.

A cross-drain on Road 22-1-5, which is within the project area, has a moderate amount of erosion occurring at the outlet. The proposal is to rip-rap the sideslope below the culvert with medium to large rock.

In addition, three boulder weirs would be constructed below the re-constructed stream channel (refer to Appendix A, "Location Map"). These weirs would be spaced approximately 250'-300' apart, and would be constructed perpendicular to the channel and blended into the sideslopes.

The project would occur in the summer of 2004 during the Oregon Department of Fish and Wildlife's operating period for in-stream work– July 1 to October 15. The stream would be diverted around the excavated area by either pumping or gravity flow. To reduce downstream sedimentation and turbidity levels, straw bales would be positioned within the stream channel just below the construction site.

Special Status plants would be surveyed for after May 1. Current management guidelines would be followed for any species found.

Prior to the in-stream restoration work, selected areas within the project area would be cleared of noxious weeds.

Individual trees with known or suspected bird nests would be reserved.

Consistent with IM No.OR-99-036 ("E-4 Special Provisions"), seasonal restrictions or suspension of project activities would occur within a 1/4 mile of: known nesting peregrine falcons, bald eagles, great grey owls, accipiter hawks, and other owls, hawks, or raptors that may be located at any time during project activities. These restrictions may be reduced or extended by the Area wildlife biologist based on survey information regarding occupation or nesting activity.

For spotted owls: Consistent with consultation with the USFWS, Reasonable and Prudent Measures to minimize disturbance to spotted owl pairs and their progeny would include: seasonal restrictions on project activities within in 65 yards of nesting spotted owls during the critical nest period (March 1-July 15) should a nest be located. These restrictions may be reduced or extended by the Area wildlife biologist based on survey information regarding occupation or nesting activity.

3.0 AFFECTED ENVIRONMENT

The proposed project area is located in the Lower Row River/Culp Creek Sixth Field Watershed near Culp Creek, Oregon. This is within the Row River Fifth Field Watershed east of Cottage Grove, Oregon. Restoration work would occur in Culp Creek, a 5thorder stream that flows into Row River at approximately RM 16.

3.1 Hydrology

The substrate along this portion of Culp Creek is predominately gravel with some large boulders, sand and silt. The project area is approximately 1100 feet in elevation with vehicle and equipment access provided via Road 22-1-5 and two unnumbered side roads that access the west side of Culp Creek. There are three culverts in the project area that may impact water quality: (1) the stream crossing at the old "Power House Dam", (2) the cross-drain on Road 22-1-5, and (3) the stream crossing on the lower access road to the old mill site. At the old "Power House Dam" there are two large metal culverts (6'x 4') under approximately 8 feet of fill. To restore the stream gradient to a more natural condition, these culverts, fill material, and some of the large boulders under the culvert would be removed.

The cross-drain on Road 22-1-5 has eroded the outer edge of the road over the years and delivered small amounts of sediment to Culp Creek. Downstream from there, there is a slightly perched stream crossing culvert on the unnumbered road providing access to the former lumber mill site on the north and west side of Culp Creek. Row River is on the 2002 Department of Environmental Quality 303 (d) Water Quality Limited List for elevated summer temperatures.

Upstream from the project area, sediments accumulated in the channel over the years after the dam was constructed in the 1950s. The stream crossing of Road 22-1-5, where it crosses Culp Creek, has turned into a low water crossing because of the buildup of sediments. As a result, the stream has migrated from the natural channel during very high flows and flowed down the road creating an erosion problem. In the winter of 2003, a waterbar was constructed as an emergency measure to keep the stream in its channel. Since then, the road has not been used by passenger vehicles.

3.2 Fisheries

Culp Creek drainage provides habitat primarily for resident cutthroat trout and sculpin species, however, other species such as rainbow trout, dace, and redside shiners may be found in the lower portion of the drainage. There are no anadromous nor ESA listed fish species in the Row River Watershed above Dorena Dam.

The project site is located in the lower portion of the Culp Creek drainage, approximately 700 feet upstream of the confluence with Row River. There is an estimated 1.25 miles (or greater) of documented fish bearing habitat upstream of the project area (ODFW 1996). The dam has been a long time barrier to the upstream and downstream migration of fish and other aquatic species, and has altered upstream habitat and stream geomorphology. In addition, the lower culvert which accesses the old mill site (refer to "Location Map") is barrier to fish and other aquatic-dependent species during low-flow periods.

3.3 Botany

The project area is part of an abandoned sawmill which has been heavily disturbed by past human activities. To the west of the channel is an old log storage yard, which is asphalt paved to within 20 feet of the stream channel. To the east of the stream is Road No. 22-1-5 which is also in close proximately of the stream channel (approximately 30 feet). Riparian vegetation is a mixture of weeds (blackberry and Scotch broom) and native plants. Blackberries are the dominant understory vegetation along this portion of Culp Creek. Overstory vegetation along the creek is alder (~ 35 Years old), cottonwoods and scattered Douglas-fir. The quarry, which is located above the dam is also heavily disturbed and compacted where the dominant vegetation is Scotch broom and blackberry. A common aquatic moss (Fontinalis neomexicana) was documented within Culp Creek. Overall, limited native vegetation occurs within the project area.

3.4 Wildlife

Bald Eagles (ESA-threatened)

No bald eagle habitat would be modified or affected by disturbance and there would be no effect to the species or its habitat due to the proposed project.

Northern Spotted Owl (ESA-threatened)

Critical Habitat

The project area is within designated Critical Habitat Unit CHU-OR-22 which was designated to provide nesting, roosting, foraging, and landscape dispersal habitats between the western slope of the Cascade Ranges and the Willamette Valley and assist in meeting regional recovery objectives for the species.

Site and Survey History

The Culp Creek spotted owl site is within 0.5 miles of the project. The designated unmapped LSR core for this site is adjacent to the project. Its northwest edge is defined by the east side of road 22-1-5 in the southeast part of section 31. No spotted owls have been detected at the site since 1992. Surveys conducted from 1993-1996 did not result in owl detections and no surveys have occurred since 1996.

Dispersal and Nesting Habitat

The project area contains dispersal and foraging habitat for spotted owls. Less than 0.5 acres of this habitat could be modified by the proposed project. No suitable habitat would be modified or disturbed by the proposed project.

4.0 DIRECT, INDIRECT, AND CUMULATIVE EFFECTS

This analysis incorporates the analysis of cumulative effects in the *USDA Forest Service and USDI Bureau of Land Management Final Supplemental Environmental Impact Statement on Management of Habitat for Late-Successional and Old Growth Forest Related Within the Range of the Northern Spotted Owl,* February 1994 (Chapter 3 & 4), and in the *Eugene District Proposed RMP/EIS* November 1994 (Chapter 4), as amended by the *Record of Decision Resource Management Plans for Seven Bureau of Land Management Districts and Land and Resource Management Plans for Nineteen National Forests Within the Range of the Northern Spotted Owl* (March 2004), *and Record of Decision to Remove or Modify the Survey and Manage Mitigation Measure Standards and*

Guidelines in Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl (March 2004).

4.1 Alternative 1 - No Action

Issue: What would be the effect of Alternative 1 on water quality, fisheries, and aquatic habitat?

Direct Effect: The site would remain as a barrier to upstream and downstream migration of fish and other aquatic-dependent species. The dam would continue to affect the upstream geomorphology with continued deposition and re-routing of the channel during moderate and high storm events. The stream crossing at Road No. 22-1-5 would continue to be a low-water stream crossing, causing turbidity concerns during periods of vehicle access.

The direct effect of the no action alternative would be continued erosion and sedimentation to Culp Creek from the "shot gun" cross-drain outlet on Road 22-1-5 that could eventually undermine the road.

The lower stream crossing, which accesses the log storage yard would continue to be a low-flow barrier for some aquatic species.

Indirect/Cumulative Effect: With no maintenance, the stream crossing on the old "Power House Dam" could fail, delivering sediment to the stream system either chronically or catastrophically. If that stream crossing failed, it is likely that Culp Creek would downcut, resulting in notable volumes of sediment transported to the confluence of Culp Creek with Row River.

The site would remain a barrier to aquatic organisms. There is the potential for the loss of resident fish populations upstream after extreme flooding or drought events where fish evacuate from the reach and prevent their return. In addition, isolated fish populations run the risk of loss of genetic diversity, as fish can move downstream but are restricted from moving back upstream.

4.2 Alternative 2 - Proposed Action – Remove "Power House Dam"; construct downstream weirs, and armor (rip-rap) stream bank below cross-drain on Road 22-1-5.

Issue: What would be the effect of the Proposed Action on water quality, fisheries, and aquatic habitat?

Direct Effects: Instream restoration work would deliver small amounts of sediment and higher turbidity levels into Culp Creek during the excavation phase, and, also after fall rains until vegetation is established on the exposed streambanks. Resident fish and other aquatic species within and near the project area would be displaced and experience higher suspended sediment loads. With the implementation of project design features (Section 2.2 and Appendix A), these effects are anticipated to be short-term and localized.

During the removal of the "Power House Dam" culverts, direct sediment delivery to Culp Creek would be curtailed by diverting the stream flow via a new culvert until the designed gradient is excavated and the channel sideslopes are laid back to natural profile or 1¼:1 slope or greater. Short-term sedimentation may result from runoff on the newly exposed banks until vegetation is established. For several years following culvert removal, some downcutting may occur and result in a longer term impact on water quality, as mentioned above.

Indirect/cumulative Effects: The indirect effect would be the downcutting of Culp Creek after the old "Power House Dam" is removed. It is estimated that between 12,000 to 20,000 cubic yards of sediment, including boulders, gravel, sand and silt might become mobilized during storm events as a result of this stream channel modification. Some of this material may be deposited near the newly constructed rock weirs, but many of the fines could reach Row River. Although it is difficult to predict how long this might occur (because annual precipitation and storm intensity varies from year to year), the erosion and sediment deposition resulting from this action could continue for several years.

Downcutting of the channel may prevent vehicle access on Road No. 22-1-5 to private and public lands located to the west of the project area unless a new stream crossing is constructed.

Based on the potential sediment movement, increased fine sediment levels could impact spawning and rearing habitat within Culp Creek and Row River. Continued displacement of fish and other species could occur over several years until the stream system stabilizes itself . As mentioned, the duration and magnitude of the impact is dependent on the annual precipitation and storm intensity.

Installation of rip-rap on the eroded bank below a cross-drain on Road 22-1-5 would protect that slope and the channel bank from further erosion.

The rock weirs would reduce stream erosion in the lower stream reach by slightly raising the water level elevation there. In particular, the boulder weir placement downstream from an existing culvert (mill access) is anticipated to promote sediment deposition at the outlet of the culvert, thus creating a backwatering affect within the culvert and improve upstream passage for aquatic species. In addition, the weirs would help provide a suitable gradient transition with the restored channel for the upstream movement of fish and other aquatic-dependent species.

Long-term effects of this project are expected to restore the integrity of the aquatic system, restore the spatial and temporal connectivity within the drainage, and restore water quality to support health riparian and aquatic ecosystems. The project would provide for the movement of fish through the drainage for a number of life history needs and increase the genetic diversity throughout the Culp Creek drainage.

5.0 OTHER ENVIRONMENTAL EFFECTS

5.1 Northern Spotted Owl (ESA-threatened)

The proposed project would result in negligible affects to dispersal foraging habitat within critical habitat for spotted owls.

Suitable nesting habitat would not be modified or disturbed by project activities and there would likely be no effects to nesting spotted owls. Less than 0.5 acres of dispersal foraging habitat may be slightly degraded by removal of individual trees near the stream. These trees are less than 15 inch dbh and none exhibit structure for nesting nor are they within the designated core area. Effects due to removing individual trees would not be measurable within the provincial home range of the site, its core, or any other scale.

5.2 Unaffected Resources

The following either are not present or would not be affected by any of the alternatives: American Indian right, Areas of Critical Environmental Concerns, prime or unique farm lands, solid or hazardous wastes, Wild and Scenic Rivers, Wilderness, cultural resources, hazardous materials, and Visual Resource Management objectives.

5.3 Environmental Justice

To comply with Executive Order 12898 of February 11, 1994, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, the Bureau of Land Management, Eugene District, will ensure that the public, including minority and low income communities, have adequate access to public information relating to human health or environmental planning, regulations, and enforcement as required by law.

The District has not identified any environmental effects, including human health, economic and social effects of Federal actions, including effects on minority populations, low-income populations, and Native American tribes, in this analysis.

6.0 MONITORING

The project area and affected upstream habitat would be monitored annually. Aquatic habitat and fish population conditions would be document and a photographic record maintained to show changes in the system over time. An annual assessment would be made to assure that the anticipated project

results are being achieved.

7.0 CONSULTATION AND COORDINATION

7.1 LIST OF PREPARERS

The Proposed Action and Alternative 1 were developed and analyzed by the following interdisciplinary team of BLM specialists:

Chuck Vostal	Fisheries
Kris Ward	Hydrology
Mike Blow	Wildlife and Threatened and Endangered Species
Cheshire Mayrsohn	Botany
Mike Sabin	Engineering
Christie Hardenbrook	Planner

7.2 CONSULTATION

Consultation with U. S. Fish & Wildlife Service would result in a “No Effect” determination for the Northern Spotted Owl.

No bald eagle habitat would be modified or affected by disturbance and there would be no effect to the species or its habitat due to the proposed project.

7.3 List of Agencies and Persons Consulted

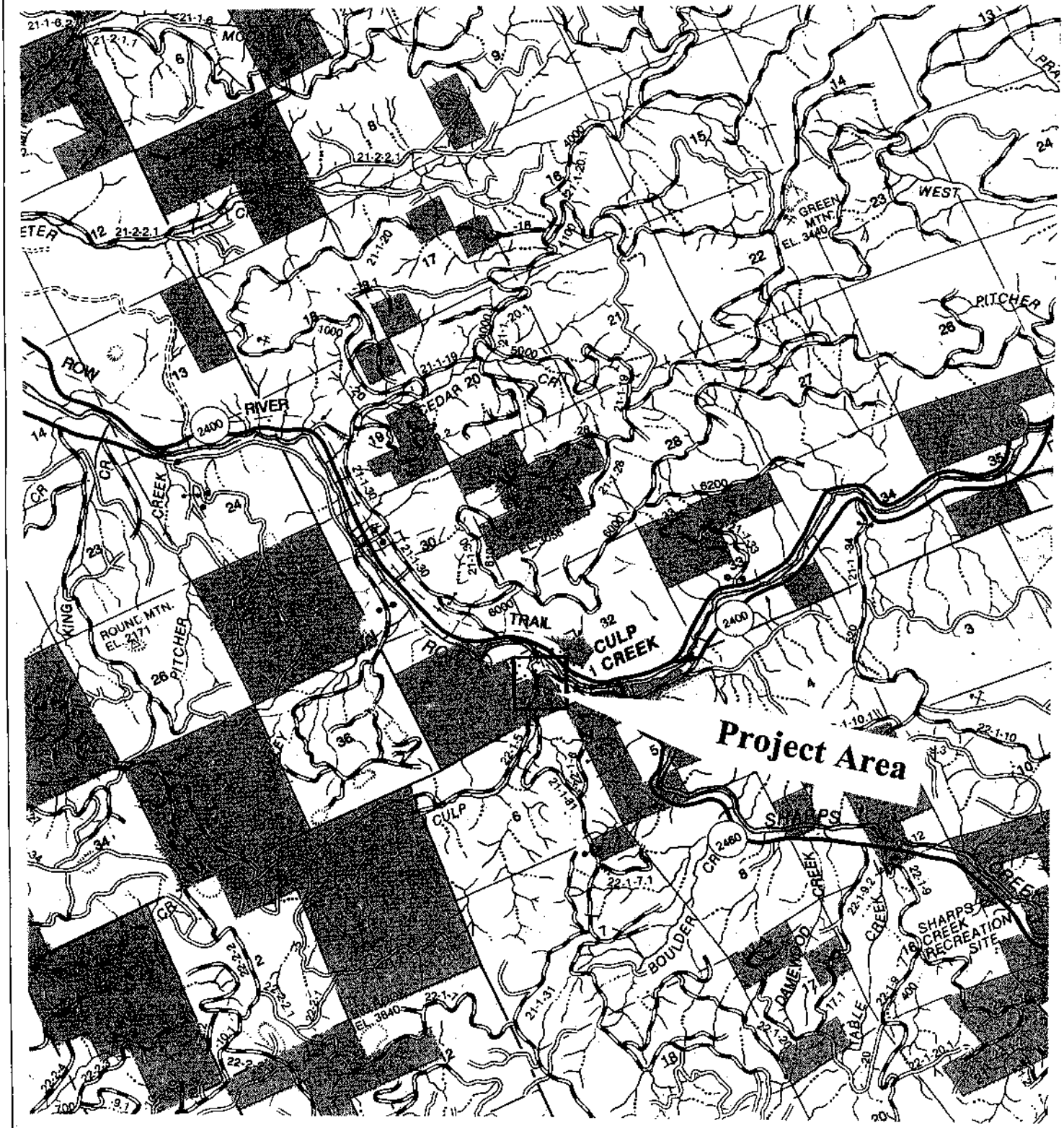
John Bianco
Oregon DEQ
Jim Goodpasture
Pam Hewitt
Charles & Reida Kimmel
Lane County Land Management
Carol Logan, Kalapooya Sacred Circle Alliance
Oregon Dept of Fish & Wildlife
Oregon Dept of Forestry
Oregon Natural Resources Council
The Pacific Rivers Council
John Poynter
Leroy Pruitt
Neal Miller
Jerry W Leach
Lenord and Judy Dorr
Patricia M Whitaker
Danny Ray Young
Johnny L Carlson
Lucinda Carlson
Rose Mary Bird-Strickland
Chane Strickland
Michael and Angela Kerns
Lester and Betty Peterson
Roseburg Forest Products Co.
Peter Saraceno
Sierra Club - Many Rivers Group
Swanson Group
Craig Tupper
Jan Wroncy
Kris and John Ward
Robert P Davison
Tom Stave, U of O Library
John Muir Project
James Johnston
Molly Widmer
David Simone
Bart Pratt
Rich Wright
Weyerhaeuser Company
John Falzone, Coast Fork Watershed Council
Kirk Rinaldi
Glen and Florene Violette
Larry and Marion Violette
Ronald and Sandra Keele
Florence J. Eriksen
Dennis Vaughn
Ronald and Karen Turpin

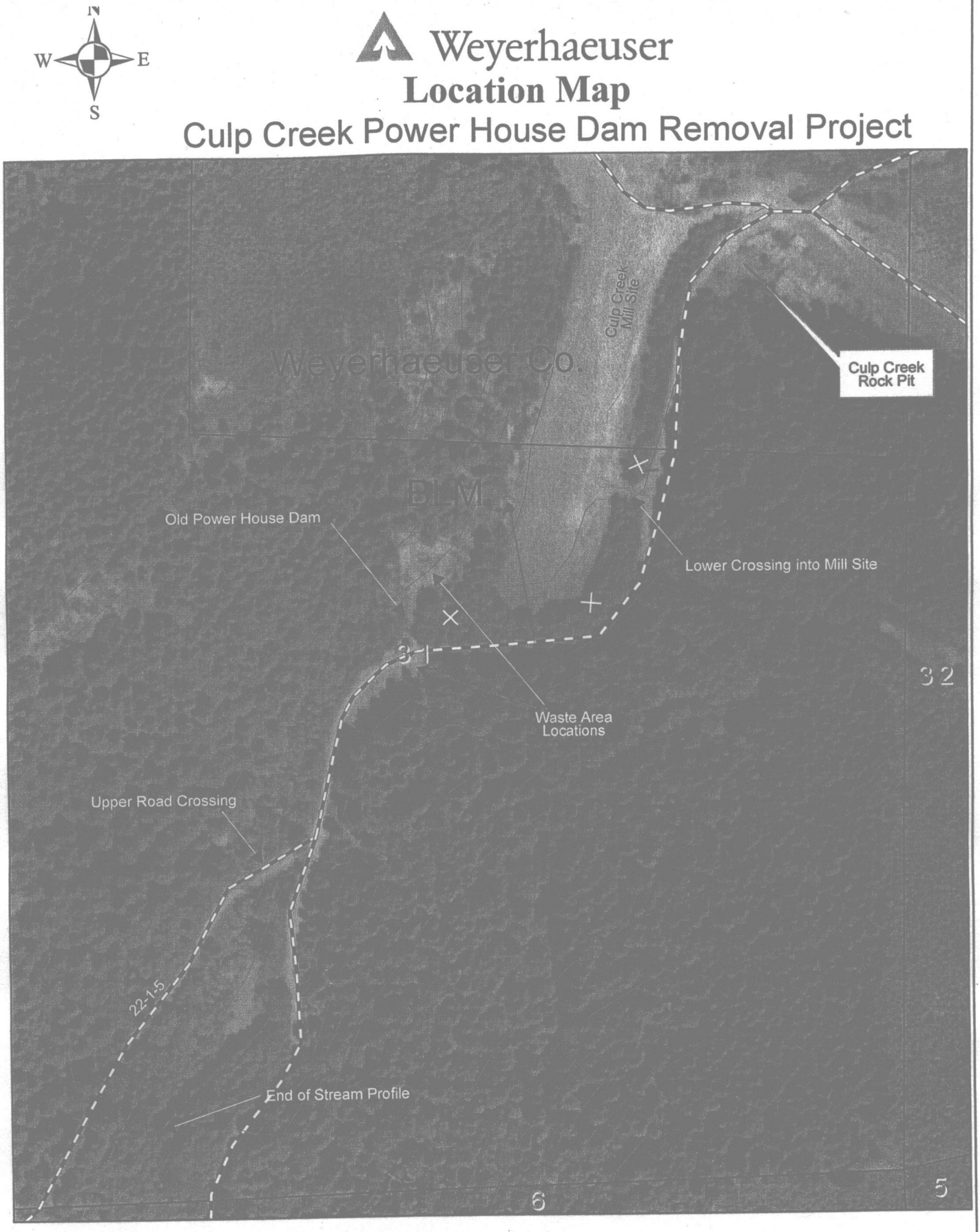
APPENDIX A

1) BLM Vicinity Map.
2) BLM Site Map.
3) Weyerhaeuser “Location Map” – Culp Creek Power House Dam Removal Project.

VICINITY MAP

Culp Creek Power House Dam Removal Project
T. 21 S., R. 1 W., Section 31

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Weyerhaeuser
Location Map
Culp Creek Power House Dam Removal Project
Culp Creek Mill Site
Weyerhaeuser Co.
Culp Creek Rock Pit
BLM
Old Power House Dam
Lower Crossing into Mill Site
3-1
3 2
Waste Area Locations
Upper Road Crossing
22-1-5
End of Stream Profile
6
5
Legend:
Gravel
Dirt
PLS Line
Stream
Approximate Boulder Weir Location
Scale: 1 inch equals 250 feet

LOCATION MAP (BLM)
CULP CREEK POWER HOUSE DAM REMOVAL PROJECT